900 17th Street, N.W.
Suite 1100
Washington, DC 20006
Phone: 202.783.0070
Fax: 202.783.0534
Web: www.ccianet.org

Computer & Communications Industry Association

January 25, 2012

The Honorable Lawrence E. Strickling
Assistant Secretary for Communications and Information and Administrator
National Telecommunications & Information Administration
United States Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

Dear Assistant Secretary Strickling:

The Computer & Communications Industry Association ("CCIA") is an international nonprofit membership organization dedicated to innovation and enhancing society's access to information and communications. CCIA promotes open markets, open systems, open networks and full, fair, and open competition in the computer, telecommunications, and Internet industries.

CCIA has long advocated for additional competition in the mobile broadband market. CCIA believes that increased competition will lead to lower prices for consumers, allowing more Americans to access services and applications via the mobile Internet. Competition will spur innovation, economic growth, and job creation as networks expand and increase in speed and capacity, and as mobile devices and Internet services proliferate and evolve to utilize these faster, more efficient networks and reach a growing number of consumers.

LightSquared has both the licensed spectrum and a sustainable business plan that will enable it to enter the mobile marketplace as a wholesale provider of mobile voice and broadband services, with the potential to lead to the entry of numerous new competitors. CCIA believes that LightSquared's proposed wholesale mobile network will help achieve the goals of the *National Broadband Plan* of expanding high-speed broadband access to millions of Americans and expanding the amount of spectrum available for mobile broadband use.

Last January the Federal Communications Commission ("Commission") granted LightSquared's request for a conditional waiver of the Ancillary Terrestrial Component "integrated service" rule. As a condition, the Commission directed LightSquared and the United States Global Positioning System ("GPS") Industry Council ("USGIC") to organize a technical working group ("TWG")

(eventually consisting of over 120 participants, including the Department of Defense and the Department of Transportation) to address potential interference issues with GPS devices.

As you know, LightSquared has consistently asserted that any interference problems with GPS devices are the result of GPS receivers improperly listening into LightSquared's spectrum frequency band.

In June 2011 the TWG reported that there were potential interference issues in the upper portion of LightSquared's L-Band spectrum. In response, LightSquared proposed to continue to work with the Commission, the National Telecommunications and Information Administration ("NTIA"), and other government agencies to alleviate interference issues in the GPS-adjacent, upper portion of its spectrum while commencing operations within the lower 10 MHz (1526-1536 MHz) of its L-Band spectrum. Further, in September 2011, LightSquared released findings that it's testing finding that 99.5% of all commercial GPS interference issues had been accounted for and solved.

In addition to the TWG, the National Space-Based Positioning, Navigation, and Timing Systems Engineering Forum ("NPEF") conducted an assessment of LightSquared's planned deployment on GPS receivers and GPS-dependent systems and networks. In June 2011 the NPEF recommended the Commission not allow LightSquared to commence operations on its L-Band spectrum due to interference with GPS operations.

In September 2011, in response to LightSquared's modified proposal to commence operations in only the lower 10 MHz of its spectrum, you requested the Executive Steering Group of the interagency National Executive Committee for Space-Based Positioning, Navigation and Timing ("PNT ExCom") work with LightSquared to test for interference with GPS devices in the 1526-1536 MHz of the Mobile-Satellite-Services band. PNT ExCom then tasked NPEF with performing the testing, which NPEF then delegated the testing to Air Force Space Command.

Air Force Space Command recently concluded testing GPS devices on behalf of the PNT ExCom to determine the extent to which GPS devices might continue to be affected by operations in the lower 10 MHz of LightSquared's L-Band spectrum. Unfortunately, the PNT ExCom report that has been sent to NTIA reaches suspect conclusions based on a defective testing and analytical process.

CCIA is concerned that this testing was not performed in an objective manner, thus compromising the test results. Therefore, CCIA believes the PNT ExCom's testing results may not provide a valid basis on which to base public policy decisions.

Specifically, it appears that the testing protocol deliberately focused on obsolete and niche market devices that were least able to withstand potential interference because they had poor filters or no filters, were manufactured many years ago (over a decade ago in some instances), are not sold to the general public, and would rarely, if ever, come close enough to a LightSquared base station to suffer any potential interference. In fact, the only mass-market device alleged to fail during this round of testing was found to perform flawlessly during the TWG testing. Thus, these factors raise doubts about the integrity of PNT ExCom's testing process.

In addition to PNT ExCom's inappropriate focus on outdated and niche devices, NTIA's definition of "harmful interference" led the testing to hold LightSquared to a stricter standard than is commonly accepted. This testing standard does not reflect reality, as the strict "harmful interference" standard utilized meant that a change of 1 dB of carrier-to-noise ratio would create the requisite interference for receiver failure under the testing protocol. However, in actual use, a 1 dB change has no impact on an end-user's use of a commercial GPS device and does not have any impact on GPS positional accuracy. In fact, GPS devices are designed to withstand 8 dB or more. By setting the definition of interference at 1 dB, the testing protocol ensured that most receivers would fail, regardless of the actual impact of such low levels of interference on actual GPS device usage.

Moreover, PNT ExCom's test results do not reflect the reality of the power levels at which LightSquared will operate. In fact, the test results assume LightSquared's power levels will be more than 30 times higher than the maximum levels the company expects to employ. Further, CCIA reiterates that LightSquared does not transmit into GPS frequencies. Rather, any potential interference is caused by GPS manufacturers infringing upon spectrum licensed to LightSquared.

CCIA believes it is clear that these and other obvious process deficiencies lead to a highly biased report that calls into question the reliability and validity of the test results. The PNT Ex Com should have opened the process for transparent peer review and the tests should have been conducted by an independent laboratory rather than by the GPS manufacturers themselves, given their conflict of interest. The public has a right to know the process and standards agreed upon between the U.S. Government and GPS manufacturers.

For these reasons and others, CCIA believes the testing of GPS devices conducted by the Air Force Space Command on behalf of the PNT ExCom is unreliable should be audited by an independent expert. Without independent verification of the PNT ExCom testing process and analysis, NTIA should disregard the results of the PNT ExCom testing and instead rely on the results of the TWG testing that was completed with input and cooperation from LightSquared, GPS manufacturers and USGIC, and relevant federal agencies.

LightSquared has already signed agreements with over thirty retail partners who are ready to market competitive mobile broadband choices to American consumers. Before the promise of new competition in the concentrated mobile broadband market is dashed for good, the federal government should conduct a more defensible good faith effort to test for unavoidable interference only.

Federal spectrum licenses from the Commission must have value to those who have sunk substantial investment into business development in reliance on those licenses and longstanding Commission rules. Otherwise, future spectrum auctions will leave billions of dollars on the table, to the detriment of taxpayers, as bidders lose confidence in the value of the assets they seek to acquire.

Sincerely,

Ed Black
President & CEO

CC: The Honorable Julius Genachowski
Chairman, Federal Communications Commission